THE WEST AMERICAN SCIENTIST.

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NOMENCLATURE.

The question of nomenclature is one which just now is being agitated by both botanists and horticulturists. Theoretically, the same laws should obtain recognition in all branches of natural science, zoology, botany and horticulture. The "Recommendations" recently endorsed by the more conservative American botanists, and emanating from the herbarium of Harvard College, give preference in specific nomenclature to the first correct combination; advise that the varietal name is to be regarded as inferior in rank to the specific; discourages the rejection of long established and generally known generic names; and pronounces against the principal of "once a synonym always a synonym" being made retroactive,

Lester F. Ward treats the question of nomenclature at length in the Bulletin of the Torrey Botanical Club, xxii, 308-329, for July, 1895, and is inclined to consider the "Harvard rules" as based solely on sentiment and not tenable if we are to have a stable code.

Let us consider for a moment whether the "new-American school of botanists" or the conservative element, is tending toward a more stable nomenclature in active practice. We (the conservative) use the name Mammillaria* for a well known genus of cacti, as first used by Haworth in 1812. After 80 years of use. on the strength of the law of "once a synonym always a synonym" it is proposed to discard this name because Mamillaria† *Stackh*, was dedicated to a genus of algæ in 1809—three years earlier—though this use of the name was long since relegated to synonymy itself. The law of priority is also called in play to uphold the replacement of the name Mammillaria with the Linnæan name Cactus‡(1735), under which name were grouped all species of cacti at that time known to science.

Neither Otto Kuntze nor John M. Coulter, the modern champions of the genus Cactus, as defined by them, seem to be sure of their position. Coulter says: "Cactus mammillaris seems to have stood as the type," and follows Kuntze, who, without discrimination, § transferred good and bad species alike from Mammillaria to Cactus! A name so well established as Mammillaria, not only among Botanists, but in the horticultural world, should not be hast-

*Haworth wrote this name Mammillaria; Prince Salm-Dyck, in Horto-Dyck, Ed. II. 5, wrote it Mamillaria, with the following foot note: "Nomen genericum Mamillaria scribendum est, quia non a verbo Mamma, sed a diminutivo Mamilla deductum." The two forms of spelling have since been in about equal use—the authorities at the Royal Gardens, Kew, follow Haworth, while most American botanists have followed in the lead of Prince Salm-Dyck.

† I do not know whether the author wrote this Mamillaria or Mammillaria, but follow the only spelling I have seen in print, since the original work is not accessible to me.

‡ Otto Kuntze, Rev. Gen. Pl., followed by Coulter, Coville, and others,—non Lemair.

§ As an example, M. tetrancistra and M. phellosperma (the latter a well known synonym of the former) are both transferred to Cactus as valid species by Kuntze, who made countless similar errors.

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PILOCEREUS SENILIS—CRISTATE SPECIMEN.

ily replaced on grounds open to question. The resurrection of the Linnæan name Cactus offers a splendid opportunity for a botanist to affix his name to a multitude of valid species (and synonyms!) not yet transferred—but practical botanists and horticulturists must deplore such "botanical activity."

The name Cactus was first used in a restricted generic sense for a group of Opuntiæ by Lemaire, a fact which would add further confusion if we were to resurrect the name as proposed, or as attempted.

My views have already been partially recorded on the nomenclature question in Science, xvii, 67 (reprinted in this magazine, vii, 206), but new points continually arise where individual judgment must be used. It seems extremely doubtful if ever Cactus will replace Mammillaria in either technical or popular use; or that Fremontodendron can long replace Fremontia, or any name supplant our Washingtonia as applied to our Californian fan palm.

It may be sentiment, but sentiment must always form a part of our language and receive consideration, especially when it aids language to perform its duty. The only final settlement of these vexing questions will be through common usage and a law ignored by horticulturists and the more conservative of our botanists will ultimately disappear. *C. R. Orcutt.*

MEXICAN SHELLS.

While spending a few weeks in and near Mexico City, in 1894, the following land and fresh water shells were observed. There was no opportunity for more than very desultory work, so that the list is necessarily short.

SUCCINEA BREVIS Dkr. I found quite a colony of this little species in the pine woods on the mountains between the cities of Mexico and Puebla, near what is locally known as Rio Frio.

S. UNDULATA Say. A common species in the City of Mexico; my specimens were collected near the Castle of Chapultepec.

HELIX ASPERSA Mull. This introduced European snail has become very abundant along the ditches and canals in the City of Mexico, and in gardens has become quite a nuisance.

H. HUMBOLDTIANA Val. A single specimen was found near the top of the mountain pass, in going to Puebla; said to be one of the commoner species in the State of Mexico.

PATULA HERMANNI Pfr. A colony of this minute shell was found near Rio Frio.

BULIMULAS ALTERNATUS Say. Dr. Herrera, of the Museo Nacional, gave me a few specimens of this shell, which I did not meet in the field.

GLANDINA GUTTATA Cr. & Fisch, near Rio Frio?

G. PLICATULA Pfr. In the mountains north of Cuautla?

PLANORBIS TENUIS Phil.

LIMNÆA ATTENUATA Say.

PHYSA BOUCARDI Cr. & Fisch. With the two preceding species, common in the City of Mexico.

The above shells have all been identified by Wm. H. Dall of the U. S. National Museum, to whom I am indebted for many similar favors.

C. R. Orcutt.

A MONSTROSITY.

Abnormal growths always possess a certain interest to horticulturists as well as botanists. We illustrate herewith a curious plant of Pilocereus senilis the old man cactus, as it appeared when discovered in the state of Hidalgo, Mexico. This plant was shipped to Paris, where it attracted considerable attention among cactus fanciers.

EDITORIAL.

For years we have preserved carefully every book, magazine, newspaper, pamphlet, and even catalogues, and circulars—many literary productions that generally meet destruction, but which have a value in a library which aims to be complete and of use to future ages. It is hoped that this material may ultimately find a permanent home in some public institution; in the meantime we shall appreciate any contributions of literature, and in addition to our thanks we offer liberal exchanges in return of seeds, bulbs, native cacti, advertising space in this magazine, or subscriptions to the same. Nearly every one accumulates in time a mass of literature useless in part to the owner—but do not destroy—we want it saved.

We have several thousand duplicate magazines, books and pamphlets, which we will also exchange, or donate to any public institution that will refund to us the postage. Among them we name: The Semi-Tropical Planter—complete sets. The Great Southwest—sets incomplete. The Young Men's Journal — nearly complete. The West American Scientist—about 50 odd numbers. The North American Review—about 50 odd numbers. 10th Annual Report Calif. State Mining Bureau. Miscellaneous books, magazines and pamphlets.

THE SECRETS OF SUCCESS.

The broad roads to a successful industrial reform, based upon 70 years' experience in England, are thus summed up by the Co-operative News: 1—The establishment of co-operative societies for supplying the wants of their members of every kind, whether by purchasing goods wholesale or manufacturing or producing these goods themselves; 2—the establishment of federal associations, such as grain milling and wholesal societies, for supplying the retail societies with goods that the retail societies cannot otherwise obtain so advantageously, and to manufacture or produce these goods when it is found advisable to do so; 3—in doing these things, to pay capital its fair remuneration and pay fair wages to the workers, besides treating the latter in that considerate manner that all co-operators would desire to be treated, and which is the golden rule ordained by Christ; 4—employing surplus capital in employing co-operators to produce for the supply of the outside market, whether in our own or foreign countries, in order that labor may be justly treated and receive its full reward.

INTEREST.

One of the prime factors in our present industrial condition is interest; 80 per cent. of the wealth of the U. S. is interest bearing today, and our annual interest charge is $3,000,000,000 or $800,000,000 more than our annual increase of wealth! In other words, capital not only demands and receives its share in the increase of our national wealth, but the working man's as well, besides drawing to itself $800,000,000.00 of the past accumulations of labor yearly! The final result can be nothing short of the industrial enslavement ot the people, if the present trend of events is not arrested,—and it is in co-operation that we must find the means of arresting and abolishing interest. Co-operation is successful in so far as it destroys this factor, in which is vested the power of capital—for, shorn of interest capital is weak, like Samson of old when shorn of his beard.

NOTES AND NEWS.

Prof. J. A. Miller of Stanford University has accepted a call to the University of Indiana.

The peach blossom has been selected by a vote of the school children of Delaware as the floral emblem of that state.

Prof. Edward Lee Greene, for many years identified with botanical work on the Pacific Coast, has become identified with the Catholic University, of Washington, D. C.

Prof. E. W. Hilgard, of the State University, has been quite ill but is now convalescent.

Prof. Symington has resigned from Stanford University to go to Amherst College.

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RIPANS

WHAT THEY ARE.

A gentleman of a methodical habit, who had adopted the habit of retaining a copy of every prescription issued by his family physician, became interested as time went on to note that the same ingredients were pretty certain to be prescribed at some point of the treatment of every case. For a poor appetite, or a sore throat, for restlessness which disturbed the baby's sleep, and for troubles which beset the aged grandparents, the favorite remedy was always turning up, although slightly modified from time to time and used often in conjunction with others. His family physician had ever been a successful practitioner; and when another was consulted, care had always been taken to obtain the services of some one eminent for skill and reputation. Still the frequent recurrence of the favorite formula was a marked circumstance. One day our friend happened to observe that the formula of a certain advertised remedy was identical with the latest prescription he had received from his own physician, and in some surprise he stated the case to him. The family doctor, after listening to what he had to say, replied: "The case is about this way; whenever there is a disturbance of the functions of the body, no matter of what nature, it is pretty certain to be accompanied by a derangement of the digestive organs. When they are all right the patient gets well. That particular formula that you have observed me to write more and more frequently is the result of an age of careful experiment, and is pretty generally agreed upon now by all educated physicians who keep up with the times. The discovery of the past few years of a means of reducing every drug to a powder and compressing the powders into little lozenges or tablets, or tabules if you prefer, which will not break or spoil, or lose their good qualities from age, if protected from air and light, is the explanation of how it has come about that this prescription is now for sale as an advertised remedy. It is as you say, however, and is all right. It is the medicine that 9 people out of 10 need every time they need any, and I have no doubt that making it so easy to obtain, so carefully prepared, and withal so cheap, will tend to actually prolong the average of human life during the present generation."

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